

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-6 (Cancelled)

7. (Currently Amended) ~~The A method of claim 1, additionally including anyone or more of the following steps~~ for data recovery from a time-continuous signal compliant to one of two or more digital signal formats each having a specific channel bit clock and a specific sync pattern occurring in regular intervals, the method comprising:

- sampling the time-continuous signal at a frequency at least as high as the maximum of all frequencies of the channel bit clocks of the digital signal formats;
- analysing the sampled signal to locate occurrences of one or more of the sync patterns, thereby making available, as an analysis information, where in the sampled signal which ones of the sync patterns are located;

- calculating from the analysis information a distance information about the distance between consecutive locations of sync patterns;

- recognising, from the analysis information and the distance information, the one digital signal format among the two or more digital signal formats to which the signal complies,

- converting the sampled signal into a converted signal which represents the data at the channel bit clock;

- analysing, after recognizing the format to which the signal complies, with an algorithm that depends on the recognized format, the sampled signal to locate occurrences of one or more predefined sync patterns, thereby making available analysis information about where in the sampled signal which ones of the sync patterns are located;

- calculating, with an algorithm that depends on the recognized format, from the analysis information a distance information about the distance between consecutive locations of sync patterns;

- calculating, with an algorithm that depends on the recognized format, from the analysis information and/or the distance information a channel bit rate and/or the channel bit clock;

- converting, with an algorithm that depends on the recognized format, the sampled signal to the sampling rate defined by the calculated channel bit rate or bit clock.

Claims 8-10 (Cancelled)

11. (Currently Amended) ~~The A Method of Claim 10, where the analysing sub-step b) involves the following sub-steps~~ for data recovery from a time-continuous signal compliant to one of two or more digital signal formats each having a specific channel bit clock and a specific sync pattern occurring in regular intervals, the method comprising the following steps:

- sampling the time-continuous signal at a frequency at least as high as the maximum of all frequencies of the channel bit clocks of the digital signal formats;
- analysing the sampled signal to locate occurrences of one or more of the sync patterns, thereby making available, as an analysis information, where in the sampled signal which ones of the sync patterns are located;
- calculating from the analysis information a distance information about the distance between consecutive locations of sync patterns;
- recognising, from the analysis information and the distance information, the one digital signal format among the two or more digital signal formats to which the signal complies,
- converting the sampled signal into a converted signal which represents the data at the channel bit clock

wherein the analysing sub-step b) involves the following sub-steps

a) setting as a current sync pattern a first sync pattern from a finite set of different sync patterns,
b) analysing the sampled signal to find positions of the current sync pattern,
c) if no positions are being found and the last sync pattern in the set has not been reached, setting as the current sync pattern the next sync pattern from the set and looping back to sub-step b

~~b1c)~~ setting as a current sync pattern version a first stretched version from a finite set of differently stretched versions of the current sync pattern,

~~b2-d)~~ analysing the sampled signal to find positions of the current sync pattern version,

b3_e) if no positions are being found and the last current sync pattern version has not been reached, setting as the current sync pattern version the next sync pattern version from the set and looping back to sub-step b2_d).

Claims 12-13 (Cancelled)

14. (Currently Amended) ~~The~~ An apparatus of Claim 12, additionally including a sync ID decoder triggered by the analyser having located a sync pattern occurrence, the sync ID decoder decoding the sync IDs from the sample rate converted digitised signal for recovering a channel bit clock from a time-continuous signal compliant to one of two or more digital signal formats each having a specific channel bit clock and a specific framing structure including a specific sync pattern occurring in regular intervals, the apparatus including

- sampling means which generate a sampled signal from the time-continuous signal,

- analogue to digital conversion means connected to the sampling means and

- sample rate conversion means; the apparatus comprising

- an analyser adapted to analyse the sampled signal to locate occurrences of one or more of the sync patterns, thereby making available, as an analysis information, where in the sampled signal which ones of the sync patterns are located,

- a calculator adapted to calculate from the analysis information a distance information about the distance between consecutive locations of sync patterns; and to calculate a channel bit rate and/or the channel bit clock from the analysis information, and

- a format recogniser adapted to recognise, from the analysis information and the distance information, the signal format to which the signal complies, wherein the sample rate conversion means convert its input data to output data obeying an output sample rate equal to the channel bit rate or bit clock as calculated by the calculator,

additionally including a sync ID decoder triggered by the analyser having located a sync pattern occurrence, the sync ID decoder decoding the sync IDs from the sample rate converted digitised signal.

Claims 15-17 (Cancelled)